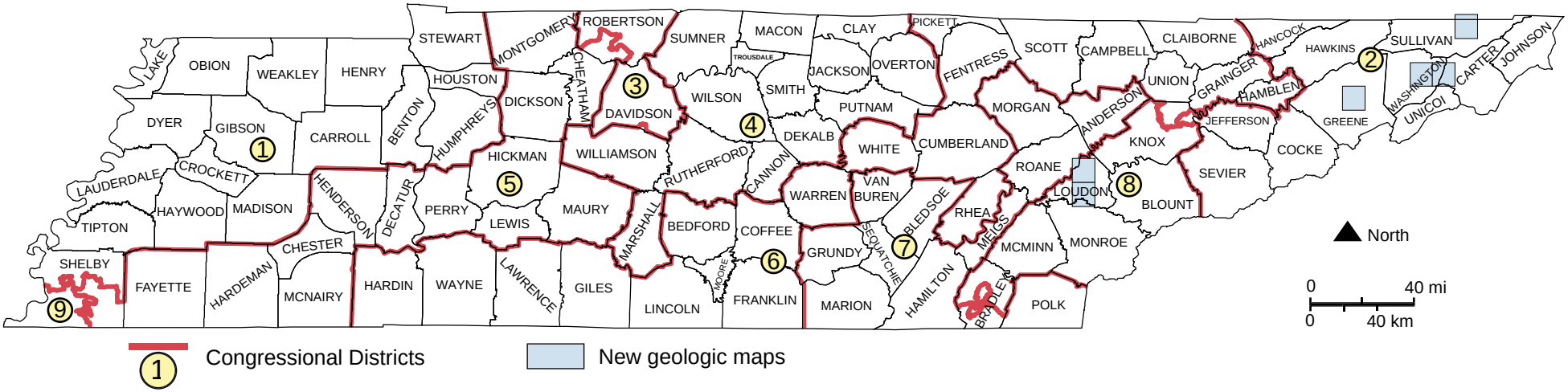
Association of American State Geologists

United States Geological Survey

National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

TENNESSEE



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SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN TENNESSEE

Federal Fiscal Year	Project Title / Scale	State Dollars	Federal Dollars	Total Project Dollars
94	**Greeneville** Geologic Map, 1:24,000	$15,000	$15,000	$30,000
95	**Johnson City** and **Bristol** Geologic Maps, 1:24,000	12,468	12,468	24,936
96	**Lenoir City** Geologic Map, 1:24,000	11,688	11,688	23,376
98	**Jonesborough** Geologic Map, 1:24,000	16,000	16,000	32,000
99	**Loudon** Geologic Map, 1:24,000	16,864	16,864	33,728
00	**Sweetwater, Philadelphia,** and **Cave Creek** Geologic Maps, 1:24,000	60,027	60,027	120,054
01	**Jackson North, Sullivan Gardens,** and **Leesburg** Geologic Maps, 1:24:000	60,000	60,000	120,000
	TOTALS	**$192,047**	**$192,047**	**$384,094**

Detailed geologic mapping began in Tennessee in 1964, when a new series of 1:24,000-scale geologic quadrangle maps was started that includes a mineral-resources summary to accompany each map. In addition to delineating geologic formations, these maps show all known information on occurrence, mining, reserves, and exploration of mineral deposits and construction materials found in each quadrangle area. This series was recently expanded to include a section on environmental geology. When the number and severity of environmental hazards such as landslides or sinkholes is significant, a separate environmental map showing the location of these hazards is also included in the geologic map package. Although 487 of Tennessee's 804 quadrangles (60 percent) have already been mapped and published, limited funding for mapping personnel has hampered this effort in recent years.

The STATEMAP part of the National Cooperative Geologic Mapping Program has enabled the Tennessee Division of Geology to increase production of these 1:24,000-scale geologic maps by at least one additional map per year. Over the past six years, STATEMAP has helped support geologic mapping of bedrock materials and identification of geologic hazards and potential mineral resources in six quadrangles in East Tennessee (Bristol, Greeneville, Johnson City, Jonesborough, Lenoir City, and Loudon). These quadrangles were prioritized by the Tennessee Geologic Mapping Priority Advisory Committee on the basis of a high degree of urbanization, significant numbers of environmentally sensitive sites and facilities, potential geologic hazards, and a notable lack of available geologic data. This effort has also addressed concerns raised during recent studies by the U.S. Geological Survey indicating that active cave development and solution openings may extend to depths of 180 meters or deeper in this part of Tennessee. Availability and potential contamination of ground water is therefore of prime concern in this rapidly developing region. These geologic maps are also the basic source of information for people engaged in environmental regulatory work, mineral and/or oil and gas exploration, geologic hazard assessment and mitigation, building-site evaluation, and many other practical as well as scientific uses.

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